08/844,215

```
* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:12:30 ON 02 MAR 1998

=> index bioscience patents
64 FILES IN THE FILE LIST IN STNINDEX
=> s human and monoclonal and hcv and e2
'E2' NOT FOUND
The E# entered is not currently defined.
=> s human and monoclonal and hcv and "e2"

           5   FILE BIOSIS
           2   FILE BIOTECHABS
           2   FILE BIOTECHDS
           3   FILE CANCERLIT
           4   FILE CAPLUS
           1   FILE CEABA
           3   FILE CJACS
           5   FILE EMBASE
           1   FILE LIFESCI
           9   FILE MEDLINE
  36 FILES SEARCHED...
           3   FILE PROMT
           6   FILE SCISEARCH
          13   FILE USPATFULL
           1   FILE WPIDS
           1   FILE WPINDEX
           1   FILE DPCI
           8   FILE EUROPATFULL
  52 FILES SEARCHED...
           1   FILE INPADOC
           1   FILE PATOSWO

  19 FILES HAVE ONE OR MORE ANSWERS,   64 FILES SEARCHED IN STNINDEX

L1   QUE HUMAN AND MONOCLONAL AND HCV AND "E2"

=> file hits
=> s l1
  16 FILES SEARCHED...
L2          67 L1
=> dup rem l2
DUPLICATE IS NOT AVAILABLE IN 'DPCI'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L2
L3           44 DUP REM L2 (23 DUPLICATES REMOVED)
=> d bib ab 1-44
L4   ANSWER 1 OF 44  USPATFULL
AN     1998:6917  USPATFULL
TI     Hepatitis C virus-derived peptides capable of inducing cytotoxic T
       lymphocyte responses
IN     Chisari, Francis V., Del Mar, CA, United States
       Cerny, Andreas, La Jolla, CA, United States
PA     The Scripps Research Institute, La Jolla, CA, United States (U.S.
       corporation)
PI     US 5709995  980120
AI     US 94-214650  940317 (8)
DT     Utility
EXNAM  Primary Examiner: Nucker, Christine M.; Assistant Examiner:
       Parkin, Jeffrey S.
LREP   Deckert Price & Rhoads
CLMN   Number of Claims: 33
ECL    Exemplary Claim: 23
DRWN   4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 2277
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The hepatitis C virus (**HCV**) is the major cause of non-A, non-B viral hepatitis. The most striking feature of **HCV** induced liver disease is its tendency toward chronicity and slowly progressive liver cell injury. HLA Class I-restricted cytotoxic T lymphocyte (CTL) responses are considered to be a sine qua non for the effective clearance of viral infections. However, the characteristics of **HCV**-specific cytotoxic effector cells and identification of their cognate target antigens remains to be elucidated. This invention discloses novel **HCV**-derived peptides that are recognized by patient CTL. Peripheral blood mononuclear cells (PBMC) were obtained from HLA-A2 positive patients with chronic **HCV** infection and stimulated with **HCV**-derived peptides. Effector cells were tested for their ability to lyse HLA-A2-matched target cells sensitized either with a peptide or a vaccinia virus construct containing **HCV** sequences. Immunogenic **HCV** CTL peptides were identified in the putative core protein and nonstructural proteins (e.g., NS3-5). These peptides have the following amino acid sequences: ADLMGYIPLV (Core.sub.131-140), LLALLSCLTV (Core.sub.178-187), QLRRHIDLLV (E1.sub.257-266) , LLCPAGHAV (NS3.sub.1169-1177), KLVALGINAV (NS3.sub.1406-1415), SLMAFTAAV (NS4.sub.1789-1797) , LLFNILGGWV (NS4.sub.1807-1816), ILDSFDPLV (NS5.sub.2252-2260), and DMLGYIPLV (Core.sub.132-140). These peptides facilitate the stimulation and identification of **HCV**-specific CTL and should provide useful diagnostic reagents for the detection of **HCV** infection.

L3 ANSWER 2 OF 44 CAPLUS COPYRIGHT 1998 ACS DUPLICATE 1
AN 1997:718031 CAPLUS
DN 128:21866
TI **Human monoclonal** antibodies specific for hepatitis C virus **E2** antigen
IN Persson, Mats Axel Atterdag; Allander, Tobias Erik
PA Persson, Mats Axel Atterdag, Swed.; Allander, Tobias Erik
SO PCT Int. Appl., 102 pp.
CODEN: PIXXD2
PI WO 9740176 A1 971030
DS W: CA, JP
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
AI WO 97-EP1977 970418
PRAI US 96-635109 960419
US 97-844215 970417
DT Patent
LA English
AB **Human monoclonal** antibodies specific for the **E2** antigen of hepatitis C virus are described and cDNAs encoding them are cloned. The antibodies are useful in specific binding assays, affinity purifn. schemes and pharmaceutical compns. for the prevention and treatment of **HCV** infection in mammalian subjects. The antibody was identified in a combinatorial library derived from an individual not immunized against the virus. Expression of the genes in Escherichia coli is demonstrated. Use of the antibodies in immunoassays for **E2** antigen is demonstrated. Dissocn. consts. for the antibody-**E2** complexes were in the range 1.times.107 to 2.times.108 M-1.

L3 ANSWER 3 OF 44 USPATFULL
AN 97:88738 USPATFULL
TI Recombinant bovine coronavirus **E2** and E3 polypeptides and vaccines
IN Parker, Michael D., Saskatoon, Canada
Cox, Graham J., Saskatoon, Canada
Babiuk, Lorne A., Saskatoon, Canada

PA Veterinary Infectious Disease Organization, Saskatchewan, Canada (non-U.S. corporation)
PI US 5672350 970930
AI US 93-171763 931222 (8)
RLI Continuation of Ser. No. US 91-811422, filed on 19 Dec 1991, now abandoned which is a continuation-in-part of Ser. No. US 91-779500, filed on 18 Oct 1991, now abandoned which is a continuation-in-part of Ser. No. US 89-397689, filed on 22 Aug 1989, now abandoned
DT Utility
EXNAM Primary Examiner: Cunningham, Thomas M.
LREP Morrison & Foerster LLP
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 36 Drawing Figure(s); 36 Drawing Page(s)
LN.CNT 1717
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid sequences encoding the Bovine Coronavirus **E2** (or BCV S) and E3 (or BCV HE) structural glycoproteins and methods of producing these proteins, including recombinant expression, e.g., in mammalian or insect cells, are provided. The **E2** and E3 proteins or antigenic fragments thereof are useful components for Bovine Coronavirus vaccines and methods of treatment.

L3 ANSWER 4 OF 44 USPATFULL
AN 97:86271 USPATFULL
TI Immunoreactive polypeptide compositions
IN Weiner, Amy J., Benicia, CA, United States
Houghton, Michael, Danville, CA, United States
PA Chiron Corporation, Emeryville, CA, United States (U.S. corporation)
PI US 5670153 970923
AI US 95-440542 950512 (8)
RLI Division of Ser. No. US 94-231368, filed on 19 Apr 1994 which is a continuation of Ser. No. US 91-759575, filed on 13 Sep 1991
DT Utility
EXNAM Primary Examiner: Woodward, Michael P.
LREP Harbin, Alisa A.; Wolffe, Susan A.; Blackburn, Robert P.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 35 Drawing Figure(s); 32 Drawing Page(s)
LN.CNT 2103
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates generally to immunoreactive polypeptide compositions comprising hepatitis type C viral epitopes, methods of using the compositions in immunological applications, and materials and methods for making the compositions.

L3 ANSWER 5 OF 44 USPATFULL
AN 97:86270 USPATFULL
TI Immunoreactive polypeptide compositions
IN Weiner, Amy J., Benicia, CA, United States
Houghton, Michael, Danville, CA, United States
PA Chiron Corporation, Emeryville, CA, United States (U.S. corporation)
PI US 5670152 970923
AI US 95-440103 950512 (8)
RLI Division of Ser. No. US 94-231368, filed on 19 Apr 1994 which is a continuation of Ser. No. US 91-759575, filed on 13 Sep 1991
DT Utility
EXNAM Primary Examiner: Woodward, Michael P.
LREP Harbin, Alisa A.; Wolffe, Susan A.; Blackburn, Robert P.
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN 35 Drawing Figure(s); 32 Drawing Page(s)

LN.CNT 1097
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates generally to immunoreactive polypeptide compositions comprising hepatitis type C viral epitopes, methods of using the compositions in immunological applications, and materials and methods for making the compositions

L3 ANSWER 6 OF 44 USPATFULL
AN 97:83819 USPATFULL
TI Mammalian expression systems for **HCV** proteins
IN Casey, James M., Zion, IL, United States
Bode, Suzanne L., Zion, IL, United States
Beck, Billy J., Gurnee, IL, United States
Yamaguchi, Julie, Chicago, IL, United States
Frail, Donald E., Libertyville, IL, United States
Desai, Suresh M., Libertyville, IL, United States
Devare, Sushil G., Northbrook, IL, United States
PA Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)
PI US 5667992 970916
AI US 95-453552 950530 (8)
RLI Division of Ser. No. US 95-417478, filed on 5 Apr 1995, now abandoned which is a continuation of Ser. No. US 93-144099, filed on 28 Oct 1993, now abandoned which is a continuation of Ser. No. US 92-830024, filed on 31 Jan 1992, now abandoned
DT Utility
EXNAM Primary Examiner: Hutzell, Paula K.; Assistant Examiner: Prickril, Benet
LREP Becker, Cheryl L.; Porembski, Priscilla E.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 15 Drawing Page(s)
LN.CNT 1112
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Mammalian expression systems for the production of **HCV** proteins. Such expression systems provide high yields of **HCV** proteins, and enable the development of diagnostic and therapeutic reagents which contain glycosylated structural antigens and also allow for the isolation of the **HCV** etiological agent.

L3 ANSWER 7 OF 44 USPATFULL
AN 97:59047 USPATFULL
TI Core antigen protein of hepatitis C virus, and diagnostic method and kit using the same
IN Liao, Jaw-Ching, Taipei, Taiwan, Province of China
Wang, Cheng-Nan, Taipei, Taiwan, Province of China
PA BioNova Corporation, San Francisco, CA, United States (U.S. corporation)
PI US 5645983 970708
AI US 93-143578 931026 (8)
RLI Division of Ser. No. US 92-963483, filed on 16 Oct 1992, now abandoned
DT Utility
EXNAM Primary Examiner: Woodward, Michael P.; Assistant Examiner: Wortman, Donna C.
LREP Seed and Berry LLP
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 679
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a DNA molecule, a polypeptide expressed by the molecule, their use in diagnosis and their methods of production. More particularly, the invention relates to a diagnostic DNA molecule, a diagnostic protein, diagnostic

antibodies and protective antigen and antibodies for hepatitis C virus (**HCV**). The DNA molecule disclosed herein is characterized by the DNA molecule derived from the genome of an **HCV**, and codes for a polypeptide having the antigenicity of an **HCV** core antigen protein. The polypeptide may be used in the detection of **HCV**.

L3 ANSWER 8 OF 44 USPATFULL
AN 97:36294 USPATFULL
TI Core antigen protein of hepatitis C virus, and diagnostic method and kit using the same
IN Liao, Jaw-Ching, Taipei, Taiwan, Province of China
Wang, Cheng-Nan, Taipei, Taiwan, Province of China
PA EverNew Biotech Inc., Taipei, Taiwan, Province of China (non-U.S. corporation)
PI US 5625034 970429
AI US 93-143579 931026 (8)
RLI Division of Ser. No. US 92-963483, filed on 16 Oct 1992, now abandoned
DT Utility
EXNAM Primary Examiner: Woodward, Michael P.
LREP Seed and Berry LLP
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 535
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a polypeptide expressed by a DNA molecule, its use in diagnosis and its methods of production. The polypeptide disclosed herein is encoded by a DNA molecule derived from the genome of an **HCV**, and comprises a hepatitis C virus (**HCV**) core antigen protein fused to a part of an envelope region of a hepatitis C virus (**HCV**) protein The polypeptide may be used in the detection of **HCV**.

L3 ANSWER 9 OF 44 USPATFULL
AN 97:20382 USPATFULL
TI Mammalian expression systems for hepatitis C virus envelope genes
IN Watanabe, Shinichi, Northbrook, IL, United States
Yamaguchi, Julie, Chicago, IL, United States
Desai, Suresh M., Libertyville, IL, United States
Devare, Sushil G., Northbrook, IL, United States
PA Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)
PI US 5610009 970311
AI US 94-188281 940128 (8)
DT Utility
EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Wortman, Donna C.
LREP Becker, Cheryl L.; Borembski, Priscilla E.
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 8 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 1447
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Mammalian expression systems for the production of **HCV** E1-**E2** fusion proteins. Such expression systems provide high yields of **HCV** proteins extracellularly, and enable the development of diagnostic, vaccine and therapeutic reagents which contain glycosylated structural antigens and also allow for the isolation of the **HCV** etiological agent.

L3 ANSWER 10 OF 44 EUROPATFULL COPYRIGHT 1998 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 814154 EUROPATFULL ED 19980112 EW 9752 FS OS
TIEN Recombinant alphavirus vectors.
TIDE Rekombinante Alphavirus-Vektoren.
TIFR Vecteurs composes d'alphavirus recombinants.
IN Dubensky, Thomas W. Jr., 12729 Via Felino, Del Mar, CA 92014, US;
Ibanez, Carlos E., 13592 Millpond Way, San Diego, CA 92129, US;
Chang, Stephen M.W., 9838 Via Cacares, San Diego, CA 92129, US;
Polly, Douglas J., 277 Hillcrest Drive, Leucadia, CA 92024, US;
Driver, David A., 5142 Biltmore St., San Diego, CA 92117, US;
Polo, John M., 221 Witham Road, Encinitas, CA 92024, US
PA CHIRON CORPORATION, 4560 Horton Street, Emeryville, California 94608, US
PAN 572530
AG Irvine, Jonquil Claire et al, J.A. KEMP & CO. 14 South Square Gray's Inn, London WC1R 5LX, GB
AGN 74182
CS ESP1997078 EP 0814154 A2 971229
SO Wila-EPZ-1997-H52-T1a
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PIT EPA2 EUROPAEISCHE PATENTANMELDUNG
PI EP 814154 A2 971229
CD 971229
AI EP 97-113527 940915
PRAI US 96-122791 930915
US 94-198450 940218
RLI EP 694070 DIV
ABEN The present invention provides expression cassettes for expression of alphavirus structural proteins and host cells, including packaging cells for packaging of alphavirus RNA vectors, containing such expression cassettes.

L5 ANSWER 11 OF 44 EUROPATFULL COPYRIGHT 1998 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 781850 EUROPATFULL ED 19970720 EW 9727 FS OS
TIEN Assay utilizing hydrogen peroxide adduct.
TIDE Wasserstoffperoxid-Zusatz verwendendes Assay.
TIFR Essai utilisant l'addition de peroxyde d'hydrogene.
IN Kuzuya, Keiko, Mochida Pharmaceutical Co., Ltd., 7, Yotsuya 1-chome, Shinjuku-ku, Tokyo, JP;
Yamauchi, Tadakazu, Mochida Pharmaceutical Co, Ltd, 7, Yotsuya 1-chome, Shinjuku-ku, Tokyo, JP
PA MOCHIDA PHARMACEUTICAL CO., LTD., 7, Yotsuya 1-chome, Shinjuku-ku Tokyo 160, JP
PAN 469262
AG Casalonga, Axel et al, BUREAU D.A. CASALONGA - JOSSE Morassistrasse 8, 80469 Muenchen, DE
AGN 14511
CS ESP1997037 EP 0781850 A2 970702
SO Wila-EPZ-1997-H27-T1a
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PIT EPA2 EUROPAEISCHE PATENTANMELDUNG
PI EP 781850 A2 970702
CD 970702
AI EP 96-120736 961223
PRAI JP 95-343822 951228
ABEN Improvement in assays utilizing at least hydrogen peroxide for one

analysis reagent is provided. The assay of the present invention employs a stable hydrogen peroxide adduct in dry state which has no adverse effects on the assay, and which has a high hydrogen peroxide-retaining ability. In the assay, an aqueous solution is added to an adduct in dry state of (a) at least one member selected from the group consisting of a carboxylic acid and a salt thereof, phosphoric acid and a salt thereof, and a sulfonic acid and a salt thereof, and (b) hydrogen peroxide to generate peroxide, and the thus generated peroxide is used for the analysis reagent. <image>

L3 ANSWER 12 OF 44 EUROPATFULL COPYRIGHT 1998 WILA

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

AN 644894 EUROPATFULL ED 19970604 EW 9720 FS PS
TIEN PEPTIDE FOR STIMULATION OF CYTOTOXIC T LYMPHOCYTES SPECIFIC FOR HEPATITIS C VIRUS.
TIDE PEPTID FUeR DIE STIMULIERUNG VON FUeR HEPATITIS C VIRUS SPEZIFISCHEN CYTOTOISCHEN T LYMPHOZYTEN.
TIFR PEPTIDE DE STIMULATION DE LYMPHOCYTES T CYTOTOXIQUES SPECIFIQUE AU VIRUS DE L'HEPATITE C.
IN BERZOFSKY, Jay, A., 9321 Corsica Drive, Bethesda, MD 20814, US;
SHIRAI, Mutsunori Idai Ikenobe Shukusha A-202, 1139-2, Ikenobe, Miki-chou, Kita-gun Kagawa 761-01, JP;
AKATSUKA, Toshitaka 4450 S. Park Avenue, Apt. 1718, Chevy Chase, MD 20815, US;
FEINSTONE, Stephen, M., 3021 Cathedral Avenue, N.W., Washington, DC 20008, US
PA THE GOVERNMENT OF THE UNITED STATES OF AMERICA as represented by the SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, National Institute of Health, Office of Technology Transfer, Westwood Building, Box OTT, Bethesda, MD 20892-9902, US
PAN 304190
AG Beaucelle, Chantal et al, Cabinet Armengaud Aine 3, avenue Hugeaud, 75116 Paris, FR
AGN 17723
OS EPB1997033 EP 0644894 B1 970514
SO Wila-EPS-1997-H20-T1
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PIT EPB1 EUROPAEISCHE PATENTSCHRIFT (Internationale Anmeldung)
PI EP 644894 B1 970514
OD 950329
AI EP 93-915244 930610
PRAI US 92-894063 920610
PLI WO 93-US5434 930610 INTAKZ
WO 9325575 931023 INTPNR
REP EP 468527 A
REN CHEMICAL ABSTRACTS, vol. 116, no. 1, 6 January 1992, Columbus, Ohio, US; abstract no. 4784, C. NOZAKI ET AL. 'Epitope analysis of HCV antigen coded by clone C8-2' page 4787;column 2; J. VIROL. vol. 66, no. 7, 1992, pages 4098 - 4106 M. SHIRAI ET AL. 'Induction of cyrixic T cells to a cross-reactive epitope in the hepatitis C virus nonstructural RNA polymerase-like protein'

L3 ANSWER 13 OF 44 MEDLINE DUPLICATE 2
AN 97437485 MEDLINE
DN 97437485
TI Characterization of truncated forms of hepatitis C virus glycoproteins.
AU Michalak J P; Wychowski C; Choukhi A; Meunier J C; Ung S; Rice C M; Dubuisson J

CS CNRS-UMR319, Institut de Biologie de Lille, France.
NC CA57973 (NCI)
AI40024 (NIAID)
SO JOURNAL OF GENERAL VIROLOGY, (1997 Sep) 78 (Pt 9) 2299-306.
Journal code: I9B. ISSN: 0022-1317.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199712
EW 19971201
AB Hepatitis C virus (**HCV**) glycoproteins (E1 and **E2**
) both contain a carboxy-terminal hydrophobic region, which presumably serves as a membrane anchor. When they are expressed in animal cell cultures, these glycoproteins, in both mature complexes and misfolded aggregates, are retained in the endoplasmic reticulum. The effect of carboxy-terminal deletions on **HCV** glycoprotein secretion and folding was examined in this study. Sindbis and/or vaccinia virus recombinants expressing truncated forms of these glycoproteins ending at amino acids 311, 330, 354 and 360 (truncated E1), and 661, 688, 704 and 715 (truncated **E2**
) were constructed. When expressed using Sindbis virus vectors, only truncated forms of E1 and **E2** ending at amino acids 311 (E1t311) and 661 (E2t661), respectively, were efficiently secreted. Analysis of secretion of truncated forms of **E2** glycoprotein expressed by vaccinia viruses indicated that significant secretion was still observed for a protein as large as E2t715. However, only secreted E2t661 appeared to be properly folded. Secreted **HCV** glycoprotein complexes were also detected in the supernatant of cell culture when E1t311 and E2t661 were coexpressed. Nevertheless, these secreted complexes, as well as E1t311 expressed alone, were misfolded. The effect of coexpression of E1 and **E2** glycoproteins on each other's folding was evaluated with the help of a conformation-sensitive **monoclonal** antibody (for **E2**) or by analysing intramolecular disulfide bond formation (for E1). Our data indicate that the folding of **E2** is independent of E1, but that **E2** is required for the proper folding of E1.

L3 ANSWER 14 OF 44 MEDLINE DUPLICATE 3
AN 1998058617 MEDLINE
DN 98058617
TI Humoral immune response to the **E2** protein of hepatitis G virus is associated with long-term recovery from infection and reveals a high frequency of hepatitis G virus exposure among healthy blood donors.
AU Tacke M; Schmolke S; Schlueter V; Sauleda S; Esteban J I; Tanaka E; Kiyosawa K; Alter H J; Schmitt U; Hess G; Ofenloch-Haehnle B; Engel A M
CS Boehringer Mannheim GmbH, R & D Infectious Diseases, Penzberg, Germany.
SO HEPATOLOGY, (1997 Dec) 26 (6) 1626-33.
Journal code: GBZ. ISSN: 0270-9139.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199803
EW 19980302
AB The second envelope protein (**E2**) of the hepatitis G virus (HGV) was expressed in Chinese hamster ovary (CHO) cells and showed a molecular weight of approximately 60 to 70 kd, with 15 to 25 kd of the size contributed by N-linked glycosylation. An enzyme-linked immunosorbent assay (ELISA) using HGV-**E2** was developed to test for antibodies to this protein (anti-**E2**) in

human sera. High sensitivity was achieved by developing **monoclonal** antibodies (mAbs) to HGV-**E2**, which were used as capture antibodies in the ELISA. Our studies revealed that 16% of healthy Spanish blood donors were exposed to HGV, indicating that additional routes of viral transmission besides parenteral exposure might exist. An even higher prevalence of exposure to HGV (52%-73%) was found in several groups at risk of parenteral exposure to infectious agents, i.e., intravenous drug users, transfusion history, hemophiliacs, and hepatitis C virus (**HCV**)-positive patients. Most anti-**E2**-positive patients were HGV-RNA-negative and vice versa, indicating an inverse correlation of these two viral markers. A panel of 16 posttransfusion patients followed for up to 16 years revealed that patients who develop an anti-**E2** response become HGV-RNA-negative, while patients who do not develop anti-**E2** are persistently infected. Immunity to HGV seems to be long-lasting, because circulating antibody to **E2** could still be detected 14 years after seroconversion. Sequence comparisons showed that **E2** is highly conserved among isolates collected worldwide, indicating that immune escape variants are not common in HGV infections. This reflects on a molecular level why HGV infections usually are cleared spontaneously by the host. However, possible mechanisms of HGV persistence, as found in some patients, remain to be elucidated.

L3 ANSWER 15 OF 44 MEDLINE DUPLICATE 4
AN 97286277 MEDLINE
DN 97286277
TI Hepatitis C virus-related proteins in kidney tissue from hepatitis C virus-infected patients with cryoglobulinemic membranoproliferative glomerulonephritis.
AU Sansonno D; Gesualdo L; Manno C; Schena F P; Dammacco F
CS Department of Biomedical Sciences and Human Oncology, University of Bari Medical School, Italy.
SO HEPATOLOGY, (1997 May) 25 (5) 1237-44.
Journal code: GBZ. ISSN: 0270-9139.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199707
EW 19970705
AB Membranoproliferative glomerulonephritis (MPGN) may be a component of a generalized vasculitis as well as a component of the clinical expression of type-II mixed cryoglobulinemia (MC). Several studies have established a striking association between hepatitis C virus (**HCV**) infection and MC. The potential role of **HCV** in the pathogenesis of MPGN, which occurs in almost half of the cases of MC patients, has not been fully investigated, and the demonstration of **HCV** proteins as the antigenic constituent of the glomerular immune deposits has remained elusive. Kidney biopsy specimens were obtained from 12 **HCV** RNA, antibody to **HCV** (anti-**HCV**)-positive patients with MPGN and type-II MC, and from 8 controls (3 **HCV** RNA, anti-**HCV**-negative patients with MPGN and MC and 5 with noncryoglobulinemic "idiopathic" MPGN). Murine **monoclonal** antibodies developed against c22-3, **E2**/NS1, c33c, c100-3, and NS5 proteins were used to detect **HCV**-related antigens by indirect immunohistochemistry. Acid electroelution of tissue sections was performed to enhance the sensitivity of the immunohistochemical method. Specific **HCV**-related proteins were detected in glomerular and tubulo-interstitial vascular structures in 8 (66.7%) **HCV**-positive MC patients and in none of the **HCV** RNA, anti-**HCV**-negative controls. **HCV** immunoreactive deposits displayed the following two

major patterns: 1) a linear, homogeneous deposition along glomerular capillary walls, including endothelial cells and sub-endothelial spaces; and 2) a granular bead-like appearance with distinct deposits in mesangial and paramesangial cells. Immunoglobulin G (IgG) and M (IgM) and C3 fraction deposition in adjacent kidney sections displayed features comparable with those found for **HCV** deposits. Patients with granular deposits showed more pronounced renal impairment and severe proteinuria. These findings indicate that in MC patients with **HCV**-associated MPGN, kidney deposits consist of **HCV**-containing immune complexes that are likely to play a direct pathogenetic role in the renal damage.

L3 ANSWER 16 OF 44 MEDLINE DUPLICATE 5
AN 97136375 MEDLINE
DN 97136375
TI Formation of native hepatitis C virus glycoprotein complexes.
AU Deleersnyder V; Pillez A; Wychowski C; Blight K; Xu J; Hahn Y S; Rice C M; Dubuisson J
CS Unite d'oncologie moleculaire, CNRS-URA1160, Institut Pasteur de Lille, France.
NC CA57973 (NCI)
SO JOURNAL OF VIROLOGY, (1997 Jan) 71 (1) 697-704.
Journal code: KCV. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199704
EW 19970402
AB The hepatitis C virus (**HCV**) glycoproteins (E1 and **E2**) interact to form a heterodimeric complex, which has been proposed as a functional subunit of the **HCV** virion envelope. As examined in cell culture transient-expression assays, the formation of properly folded, noncovalently associated E1E2 complexes is a slow and inefficient process. Due to lack of appropriate immunological reagents, it has been difficult to distinguish between glycoprotein molecules that undergo productive folding and assembly from those which follow a nonproductive pathway leading to misfolding and aggregation. Here we report the isolation and characterization of a conformation-sensitive **E2** -reactive **monoclonal** antibody (H2). The H2 **monoclonal** antibody selectively recognizes slowly maturing E1E2 heterodimers which are noncovalently linked, protease resistant, and no longer associated with the endoplasmic reticulum chaperone calnexin. This complex probably represents the native prebudding form of the **HCV** glycoprotein heterodimer. Besides providing a novel reagent for basic studies on **HCV** virion assembly and entry, this **monoclonal** antibody should be useful for optimizing production and isolation of native **HCV** glycoprotein complexes for serodiagnostic and vaccine applications.

L3 ANSWER 17 of 44 COPYRIGHT 1998 ACS
AN 97:9299 CJACS
SO Analytical Chemistry, (1997), 69(12), 165-229. CODEN: ANCHAM. ISSN: 0003-2700
TI Clinical Chemistry
AU (1) Anderson, David J. (*); (2) Guo, Bacchuan; (3) Xu, Yan; (4) Ng, Lily M.; (5) Kricka, Larry J.; (6) Skogerboe, Kristen J.; (7) Hage, David S.; (8) Schoeff, Larry; (9) Wang, Joseph; (10) Sokoll, Lori J.; (11) Chan, Daniel W.; (12) Ward, Kory M.; (13) Davis, Katherine A.
CS (1,2,3,4,5,6,7,8,9,10,11,12,13) Department of Chemistry, Cleveland State University, Cleveland, Ohio 44115
(1,2,3,4,5,6,7,8,9,10,11,12,13) Department of Pathology and

Laboratory Medicine, University of Pennsylvania, Philadelphia, Pennsylvania 19104
(1,2,3,4,5,6,7,8,9,10,11,12,13) Department of Chemistry, Seattle University, Broadway and Madison, 900 Broadway, Seattle, Washington 98122
(1,2,3,4,5,6,7,8,9,10,11,12,13) Department of Chemistry, University of Nebraska, Lincoln, Nebraska 68588
(1,2,3,4,5,6,7,8,9,10,11,12,13) Department of Pathology, School of Medicine, University of Utah, 50 North Medical Drive, Salt Lake City, Utah 84132
(1,2,3,4,5,6,7,8,9,10,11,12,13) Department of Chemistry and Biochemistry, New Mexico State University, Las Cruces, New Mexico 88003
(1,2,3,4,5,6,7,8,9,10,11,12,13) Departments of Pathology and Oncology, Johns Hopkins University, 600 North Wolfe Street, Meyer B-121, Baltimore, Maryland 21287
(1,2,3,4,5,6,7,8,9,10,11,12,13) School of Allied Medical Professions and the Department of Pathology, The Ohio State University, 1583 Perry Street, Columbus, Ohio 43210

L3 ANSWER 18 OF 44 MEDLINE
AN 97411689 MEDLINE
DN 97411689
TI The etiology and pathophysiology of mixed cryoglobulinemia secondary to hepatitis C virus infection.
AU Agnello V
CS Lahey Hitchcock Clinic, Burlington, MA 01805, USA.
SO SPRINGER SEMINARS IN IMMUNOPATHOLOGY, (1997) 19 (1) 111-29. Ref: 69
Journal code: VBG. ISSN: 0344-4325.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199712
EW 19971202
AB The strong association of **HCV** infection with MC-II and the selective concentration of the virus with the WA mRF in the cryoglobulins are compelling suggestions that the virus is directly involved in production of the mRF and the pathophysiology of MC-II. There is, however, only limited data on **HCV** involvement in both processes. In cutaneous vasculitis, which is the most prevalent clinical feature of the disease, there is evidence that complexes of **HCV**, mRF and IgG are formed in situ from components of the cryoglobulins that are present in the blood in a dissociated state. It is postulated that local factors, cooling and stasis predispose to formation of these lesions in the lower limbs. However, since cutaneous vasculitis does not correlate with cryoglobulin levels and may not be induced by cold challenge, other factors may be involved. In particular, the conditions which activate the vascular endothelial cells, leading to the leukocytoclastic vasculitis, require delineation. In contrast to cutaneous vasculitis, **HCV** RNA has not been prominently detected in immune complexes in MPGN lesions and has not been detected at all in the peripheral neuropathy lesions. These preliminary observations suggest that different pathophysiological processes are involved in for these lesions than in cutaneous vasculitis. From the correlation of remission of disease with decreased cryoglobulinemia and viremia in treated patients with MC-II, and from immunohistological data on the hepatitic lymphoid follicles in MC-II (see chapter 7), it appears that an antigen-driven benign proliferation of B cells is responsible for production off mRF and cryoglobulinemia. New findings have suggested that one mechanism for developing mixed cryoglobulinemia may be that **HCV**-VLDL complexes that contain apo **E2** are poorly endocytosed by the LDLR, which

may be a major route of entry of the virus to the cell; persistence of the complexes in the circulation may then stimulate mRF production. This new hypothesis is based only on initial in vitro observations and require independent confirmation and validation in vivo. From indirect clinical evidence it has also been postulated that mRF in some patients may limit the cytopathology in MC-II, resulting in a lower prevalence of cirrhosis in these patients. These findings suggested another hypothesis, which is that the mRF prevents spread of infection to hepatocytes and other permissive and nonpermissive cells by blocking endocytosis of **HCV**-VLDL complexes by the LDLR. Furthermore, data on the composition of cryoglobulins, the molecular composition of WA mRF and the characterization of **monoclonal** B cells in the liver of patients with MC-II (see chapter 7) suggest that a specific population of B cells may be involved in the host response to **HCV** infection. These are B cells that proliferate with little or no somatic mutations of the immunoglobulin genes, are self-replicating, are stimulated by self antigens in a T cell-independent manner and bear the CD5 marker. The proliferation of this B cell population may be the host's response to the attempt by the virus to circumvent the immune response by complexing with host lipoproteins. It is proposed that **HCV** complexed to VLDL is the antigen that directly stimulates the proliferation of these primordial type B cells. Testing of these hypotheses may produce insights not only into the etiology of mixed cryoglobulinemia but possibly into the mechanisms by which **HCV** circumvents the immune response and established chronic infection.

L3 ANSWER 19 OF 44 PROMT COPYRIGHT 1998 IAC

AN 97:57203 PROMT

TI Transmission (**HCV**) "Molecular Evidence of Mother-to-Infant Transmission of Hepatitis C by Quasispecies Analysis."

SO Blood Weekly, (27 Jan 1997) pp. N/A.
ISSN: 1065-6073.

WC 260

FULL TEXT IS AVAILABLE IN THE ALL FORMAT

AB P. Halfon, H. Khiri, V. Gerolami, J.P. Alimi, J.M. Feryn, M. Bourliere, J. Sarles and G. Cartouzou. Department of Biochemistry, Hospital de la Conception; Alphabio Laboratory; Department of Hepato-Gastroenterology, Hospital Saint Joseph; Department of Hepato-Gastroenterology, Hospital de la Timone - Enfants, Marseille. According to an abstract submitted by the authors to the 31st Annual Meeting of the European Association for the Study of the Liver, held August 25-29, 1996, in Geneva, Switzerland, "The vertical transmission of **HCV** from mother to infants is strongly debated. We reported an exceptional case of vertical transmission of **HCV** from a mother to her four children. PATIENTS: a 35 years old mother (M1), with a chronic hepatitis C virus infection, without **human** immunodeficiency virus, infected by transfusion and her four infected children, 3 (E5), 5 (E4), 6 (E3), 8 (**E2**)-yr old boys were studied. METHODS: to assess the molecular evidence of mother to infants transmission, the quasispecies mixtures of the **E2**/NS 1 hypervariable region (HVR1) were analysed by sequencing of ten clones from each of the family member's. The **HCV** RNA quantitation was measured by bDNA. A philogenetic trees were constructed by the neighbor-joining method. RESULTS: quantification of the **HCV** RNA was respectively: 7.22 10(6) (M1), 7.94 10(6) (**E2**), 11.51 10(6) (E3), 8.30 10(6) (E4), 3.76 10(6) (E5) genomes eq/mL. The same 1a genotype was found in members of the family. Comparison of the philogenic trees showed that the infant's sequence was closely related to the population of variants from their own mother. However, four clones: **E2**-9 and E5-2 from two brothers **E2** and E5,

E2-4 and E3-1 from **E2** and E3 brothers were closed, but significantly divergent of the variants from the mother. CONCLUSIONS: 1) Philogenic analysis of the HVR1 region is useful for the epidemiological studies of **HCV** transmission; 2) Infants select one dominant strain during mother-to-infant transmission of **HCV**; 3) Intrafamillial transmission between infants is clearly demonstrated; 4) Nucleotide differences of DS nature between infants and mother increased during the course of the disease; 5) A long term follow-up of the HVR1 region in infants must be purchased."
THIS IS THE FULL TEXT: COPYRIGHT 1997 Charles W Henderson

L3 ANSWER 20 OF 44 USPATFULL
AN 96:38766 USPATFULL
TI Nucleotide and deduced amino acid sequences of the envelope 1 gene of 51 isolates of hepatitis C virus and the use of reagents derived from these sequences in diagnostic methods and vaccines
IN Bukh, Jens, Bethesda, MD, United States
Miller, Roger H., Rockville, MD, United States
Purcell, Robert H., Boyds, MD, United States
PA The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)
PI US 5514539 960507
AI US 93-86428 930629 (8)
DT Utility
EXNAM Primary Examiner: Jones, W. Gary; Assistant Examiner: Sisson, Bradley L.
LREP Morgan & Finnegan
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 71 Drawing Figure(s); 71 Drawing Page(s)
LN.CNT 2126
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The nucleotide and deduced amino acid sequences of 51 cDNAs are disclosed where each cDNA encodes the envelope 1 gene of an isolate of hepatitis C virus (**HCV**). The invention relates to the oligonucleotides, peptides and recombinant envelope 1 proteins derived from these sequences and their use in diagnostic methods and vaccines.

L3 ANSWER 21 OF 44 EUROPATFULL COPYRIGHT 1998 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 747482 EUROPATFULL ED 19970307 EW 9650 FS OS
TIEN Hepatitis GB virus recombinant proteins and uses thereof.
TIDE Rekombinante Proteine des Hepatitis GB Virus und ihre Verwendungen.
TIFR Proteines recombinantes de virus de l'hepatite GB et leur utilisations.
IN Pilot-Matias, Tami J., 2100 Cranbrook Road, Green Oaks, IL 60048, US;
Leary, Thomas P., 6820 107th Avenue, Kenosha, WI 53143, US;
Simons, John N., 738 N. Allegheny Road, Grayslake, IL 60030, US;
Carrick, Robert J., 9925 4th Avenue, Kenosha, WI 53143, US;
Furuwy, Teresa K., 6803 Third Avenue, Kenosha, WI 53143, US;
Desai, Suresh M., 1408 Amy Lane, Libertyville, IL 60048, US;
Dawson, George J., 914 South Dymond Road, Libertyville, IL 60048, US;
Muerhoff, Anthony S., 611 68th Place, Kenosha, WI 53143, US;
Mushahwar, Isa K., 18790 Arbor Boulevard, Grayslake, IL 60030, US
PA ABBOTT LABORATORIES, 100 Abbott Park Road, Abbott Park, Illinois 60064-3500, US
PAN 2132740
AG Modiano, Guido, Dr.-Ing. et al, Modiano, Josif, Pisanty & Staub,

Baaderstrasse 3, 80469 Muenchen, DE
AGN 40786
OS ESP1996067 EP 0747482 A2 961211
SC Wila-EPZ-1996-H50-T1a
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS R AT; R BE; R CH; R DE; R ES; R FR; R GB; R IT; R LI; R NL
PIT EPA2 EUROPAEISCHE PATENTANMELDUNG
PI EP 747482 A2 961211
CI 961211
AI EP 96-109206 960607
PRAI US 95-480995 950607
US 96-629463 960419
ABEN Recombinantly produced hepatitis GB Virus (HGBV) amino acid sequences useful for a variety of diagnostic and therapeutic applications, kits for using the HGBV amino acid sequences and antibodies which specifically bind to HGBV. Also provided are methods for producing antibodies, polyclonal or **monoclonal**, from the HGBV recombinantly produced amino acid sequences. <image>

L3 ANSWER 22 OF 44 EUROPATFULL COPYRIGHT 1998 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 717104 EUROPATFULL UP 19970408 EW 9625 FS OS STA R
TIEN Immunoassay of non-A, non-B hepatitis virus-related antigens, **monoclonal** antibodies for use therein, and hybridomas producing the antibodies.
TIDE Immuntests von nicht-A, nicht-B Hepatitisvirus-verwandten Antigenen, monoklonale Antikoerper und diese synthetisierende Hybridome.
TIFR Immunoessai pour antigenes apparentes au virus de l'hepatite non-A, non-B, anticorps monoclonaux et hybridomes les produisants.
IN Kashiwaguma, Tomiko, 6-9-513 Minami-cho, Itabashi-ku, Tokyo, JP;
Yagi, Shintaro, 421 Soken-Apaato,1-4-4 Nishi-Tsurugaoka, Ooi-machi, Iruma-gun, Saitama-ken, JP;
Hasegawa, Akira, 3-8-25-306, Sekima, Sakado-shi, Saitama-ken, JP;
Kajita, Tadahiro, 302 Kooto-Dooru, 15-12 Nakashima-cho, Nishinomiya-shi, Hyogo-ken, JP;
Ohta, Yohsuke, 2-15-12 Kasugadai, Nishi-ku, Kobe-shi, Hyogo-ken, JP;
Mori, Hiroyuki, 3-14-3 Ebie, Fukushima-ku, Osaka-shi, Osaka-fu, JP
PA THE TOKYO METROPOLITAN INSTITUTE OF MEDICAL SCIENCE, 18-22, Honkomagome 3-chome, Bunkyo-ku, Tokyo 113, JP;
INTERNATIONAL REAGENTS CORPORATION, 1-30, Hamabe-dori 2-chome Chuo-ku, Kobe-shi Hyogo-ken, JP;
Tonen Corporation, 1-1-1, Hitotsubashi Chiyoda-ku, Tokyo 107, JP
PAN 1349420; 1123010; 223066
AG Nicholls, Kathryn Margaret et al, MEWBURN ELLIS York House 23 Kingsway, London WC2B 6HP, GB
AGN 60341
OS ESP1996032 EP 0717104 A2 960619
SC Wila-EPZ-1996-H25-T1a
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS R DE; R FR; R GB; R IT
PIT EPA2 EUROPAEISCHE PATENTANMELDUNG
PI EP 717104 A2 960619
CI 960619
AI EP 95-304871 950712
PRAI JP 94-193904 940712
ABEN This invention concerns a **monoclonal** antibody having binding specificity for an antigenic determinant site on core

structural protein from Non-A,Non-B hepatitis virus (NANBV); a hybridoma cell line capable of producing the **monoclonal** antibody; a process for the preparation of the **monoclonal** antibody; an immunoassay of NANBV-related antigens by use of the **monoclonal** antibody; and a test kit for use in the immunoassay. The preferred **monoclonal** antibody is 5E3, 5F11, 5i5S or 1080S. The **monoclonal** antibody can specifically recognize the NANBV core structural protein in sera from patients with Non-A,Non-B hepatitis thereby being served extensively as an antibody in various immunological reagents for definitive diagnosis of Non-A, Non-B hepatitis.

L3 ANSWER 23 OF 44 EUROPATFULL COPYRIGHT 1998 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 716148 EUROPATFULL UP 19970408 EW 9624 FS OS STA P
TIEN Recombinant alphavirus vectors.
TIDE Rekombinanter Alphavirus-Vektor.
TIFR Vecteurs composes d'alphavirus recombinants.
IN Dubensky, Thomas W. Jr., 12729 Via Felino, Del Mar, CA 92014, US; Ibanez, Carlos E., 13592 Millpond Way, San Diego, CA 92129, US; Chang, Stephen M.W., 9838 Via Cacares, San Diego, CA 92129, US; Jolly, Douglas J., 277 Hillcrest Drive, Leucadia, CA 92024, US; Driver, David A., 5142 Biltmore St., San Diego, CA 92117, US; Polo, John M., 1222 Reed Ave., No. 4, San Diego, CA 92109, US
PA CHIRON VIAGENE, INC., 4560 Horton Street, Emeryville, California 94608, US
PAN 2076910
AG Brasnett, Adrian Hugh, J.A. KEMP & CO. 14 South Square Gray's Inn, London WC1R 5LX, GB
AGN 73111
OS ESP1996031 EP 0716148 A2 960612
SO Wila-EP2-1996-H24-T1a
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS P AT; R BE; R CH; R DE; P DK; P ES; P FR; R GB; R GR; P IE; R IT; P LI; R LU; R MC; R NL; P PT; P SE
PIT EPA2 EUROPAEISCHE PATENTANMELDUNG
PI EP 716148 A2 960612
OD 960612
AI EP 95-115460 940915
PRAI US 93-122791 930915
US 94-198450 940218
RLI EP 694070 DIV
ABEN The present invention provides composition and methods for utilizing recombinant alphavirus vectors.

L3 ANSWER 24 OF 44 EUROPATFULL COPYRIGHT 1998 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 711829 EUROPATFULL UP 19970408 EW 9620 FS OS STA P
TIEN Recombinant alphavirus vectors.
TIDE Rekombinanter Alphavirus-Vektor.
TIFR Vecteurs composes d'alphavirus recombinants.
IN Dubensky, Thomas W. Jr., 12729 Via Felino, Del Mar, CA 92014, US; Ibanez, Carlos E., 13592 Millpond Way, San Diego, CA 92129, US; Chang, Stephen M.W., 9838 Via Cacares, San Diego, CA 92129, US; Jolly, Douglas H., 277 Hillcrest Drive, Leucadia, CA 92024, US; Driver, David H., 5142 Biltmore St., San Diego, CA 92117, US; Polo, John M., 1222 Reed Ave., No. 4, San Diego, CA 92109, US

PA CHIRON VIAGENE, INC., 4560 Horton Street, Emeryville, California 94608, US
PAN 207810
AG Brasnett, Adrian Hugh et al, J.A. KEMP & CO. 14 South Square Gray's Inn, London WC1R 5LX, GB
AGN 73111
OS ESP1996025 EP 0711829 A2 960515
SO Wila-EP2-1996-H20-T1a
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PIT EPA2 EUROPAEISCHE PATENTANMELDUNG
PI EP 711829 A2 960515
OD 960515
AI EP 95-115459 940915
PRAI US 93-122791 930915
US 94-198450 940218
RLI EP 694070 DIV
ABEN The present invention provides compositions and methods for utilizing recombinant alphavirus vectors.

L3 ANSWER 35 OF 44 EUROPATFULL COPYRIGHT 1998 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 690306 EUROPATFULL ED 19970108 EW 9601 FS OS
TIEN Method and device for specific binding assay.
TIDE Methode und Vorrichtung fuer eine Bestimmung durch spezifische Bindung.
TIFR Methode et dispositif a utiliser dans les essais de liaisons specifiques.
IN Yamauchi, Tadakazu, c/o Mochida Pharmaceutical Co., Ltd., 7, Yotsuya 1-chome, Shinjuku-ku, Tokyo, JP;
Terasawa, Hideyuki, c/o Mochida Pharmaceutical Co., Ltd., 7, Yotsuya 1-chome, Shinjuku-ku, Tokyo, JP
PA MOCHIDA PHARMACEUTICAL CO., LTD., 7, Yotsuya 1-chome, Shinjuku-ku Tokyo 160, JP
PAN 469262
AG Gruenecker, Kinkeldey, Stockmair & Schwanhaeusser Anwaltssozietaet, Maximilianstrasse 58, D-80538 Muenchen, DE
AGN 190721
OS EP1996001 EP 0690306 A1 960103
SO Wila-EP2-1996-H01-T2a
DT Patent
LA Anmeldung in Englisch; Veroeffentlichung in Englisch
DS R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PIT EPA1 EUROPAEISCHE PATENTANMELDUNG
PI EP 690306 A1 960103
OD 960103
AI EP 95 110031 950627
PRAI JP 94 146865 940628
ABEN This invention provides a specific binding assay method which is excellent in general purpose applicability and can perform highly accurate and quick measurement effected by the exclusion of various factors that decrease reliability of the measured values, such as non-specific reactants in test samples, assay conditions and inactivation and the like changes in the activity of reagents, as well as a specific binding assay device suitable for the practice thereof.

This object is achieved by allowing a signal substance generator which takes part in a specific binding reaction and generates a signal substance, together with a liquid sample, to flow through a

predetermined channel in a predetermined direction, thereby effecting generation of the specific binding reaction of a substance to be assayed to form a distribution of the signal substance generator in the channel in response to the concentration of the substance to be assayed, allowing the signal substance generator distributed in the channel to generate the signal substance, detecting the generated signal substance by a plurality of detection means arranged at different positions in the liquid flow direction, and arithmetically processing the plural detection results to minimize influence of other factors than the concentration of the substance to be assayed upon the assay result. <image>

L3 ANSWER 26 OF 44 SCISEARCH COPYRIGHT 1998 ISI (R) DUPLICATE 6
AN 96:740071 SCISEARCH
GA The Genuine Article (R) Number: VL319
TI **HUMAN** RECOMBINANT ANTIBODIES SPECIFIC FOR HEPATITIS-C VIRUS CORE AND ENVELOPE **E2** PEPTIDES FROM AN IMMUNE PHAGE DISPLAY LIBRARY
AU CHAN S W (Reprint); BYE J M; JACKSON P; ALLAIN J P
CS UNIV CAMBRIDGE, ADDENBROOKES HOSP, SCH CLIN MED, DEPT MED, BOX 157, LEVEL 5, HILLS RD, CAMBRIDGE CB2 2QQ, ENGLAND (Reprint); MRC, MOL IMMUNOPATHOL UNIT, MRC CTR, CAMBRIDGE CB2 2QH, ENGLAND; UNIV CAMBRIDGE, CTR MRC, DIV TRANSFUS MED, DEPT HAEMATOL, CAMBRIDGE CB2 2QH, ENGLAND; E ANGLIAN BLOOD TRANSFUS CTR, CAMBRIDGE CB2 2PT, ENGLAND
CYA ENGLAND
SO JOURNAL OF GENERAL VIROLOGY, (OCT 1996) Vol. 77, Part 10, pp. 2531-2539.
ISSN: 0022-1317.
DT Article; Journal
FS LIFE
LA ENGLISH
REC Reference Count: 44
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB Hepatitis C virus (**HCV**) is the aetiological agent responsible for most cases of non-A non-B hepatitis. Hepatitis C is a disease of clinical importance because of its high infection rate in blood donors and its persistence as chronic infections which may lead to cirrhosis and hepatocellular carcinoma in the long term. The variability of the **HCV** genome has posed difficulties in serological detection and vaccine design. The recent advance in phage technology offers a means of cloning **human** anti-**HCV** antibodies of a defined specificity that may have potential therapeutic use. We now report the generation of a phage display library using the V-H genes of a **HCV**-infected patient and the V-L genes of two non-immune individuals. From this library we were able to obtain specific IgG single-chain Fvs (scFvs) that recognize viral core and envelope proteins by selection on synthetic peptides derived from the core sequence PKARRPEGRTWAQPG and the envelope **E2** sequence RPIDDFDQGWGPITY. The specificity of the scFvs was demonstrated by their specific reactions with homologous peptides in ELISA and the specific blocking of scFv binding by homologous peptides, in a dose-dependent manner, in inhibition ELISA. The binding of the anti-core 4c2 to homologous peptide was blocked by **HCV**-positive **human** sera in an antibody-concentration-dependent manner, suggesting that the scFv recognizes a similar if not identical epitope to those of one or more of the polyclonal antibodies present in the sera.

L3 ANSWER 27 OF 44 MEDLINE DUPLICATE 7
AN 96312485 MEDLINE
IN 96312485

TI A quantitative test to estimate neutralizing antibodies to the hepatitis C virus: cytofluorimetric assessment of envelope glycoprotein 2 binding to target cells.

AU Rosa D; Campagnoli S; Moretto C; Guenzi E; Cousens L; Chin M; Dong C; Weiner A J; Lau J Y; Choo Q L; Chien D; Pileri P; Houghton M; Abrignani S

CS Chiron-Biocine, Immunobiology Research Institute of Siena (IRIS), Italy.

SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1996 Mar 5) 93 (5) 1759-63.
Journal code: PV3. ISSN: 0027-8424.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199611

AB Hepatitis C virus (**HCV**) is a major cause of chronic hepatitis. The virus does not replicate efficiently in cell cultures, and it is therefore difficult to assess infection-neutralizing antibodies and to evaluate protective immunity in vitro. To study the binding of the **HCV** envelope to cell-surface receptors, we developed an assay to assess specific binding of recombinant envelope proteins to **human** cells and neutralization thereof. **HCV** recombinant envelope proteins expressed in various systems were incubated with **human** cells, and binding was assessed by flow cytometry using anti-envelope antibodies. Envelope glycoprotein 2 (**E2**) expressed in mammalian cells, but not in yeast or insect cells, binds **human** cells with high affinity (Kd approximately 10(-8) M). We then assessed antibodies able to neutralize **E2** binding in the sera of both vaccinated and carrier chimpanzees, as well as in the sera of humans infected with various **HCV** genotypes. Vaccination with recombinant envelope proteins expressed in mammalian cells elicited high titers of neutralizing antibodies that correlated with protection from **HCV** challenge. **HCV** infection does not elicit neutralizing antibodies in most chimpanzees and humans, although low titers of neutralizing antibodies were detectable in a minority of infections. The ability to neutralize binding of **E2** derived from the **HCV**-1 genotype was equally distributed among sera from patients infected with **HCV** genotypes 1, 2, and 3, demonstrating that binding of **E2** is partly independent of **E2** hypervariable regions. However, a mouse **monoclonal** antibody raised against the **E2** hypervariable region 1 can partially neutralize binding of **E2**, indicating that at least two neutralizing epitopes, one of which is hypervariable, should exist on the **E2** protein. The neutralization-of-binding assay described will be useful to study protective immunity to **HCV** infection and for vaccine development.

L8 ANSWER 28 OF 44 SCISEARCH COPYRIGHT 1998 ISI (R)

AN 96:763712 SCISEARCH

GA The Genuine Article (R) Number: VL285

TI ISOLATION OF **HUMAN MONOCLONAL**-ANTIBODIES (HMABS) DIRECTED AT CONFORMATIONAL DETERMINANTS OF THE HEPATITIS-C VIRUS (**HCV**) **E2** ENVELOPE PROTEIN

AU HABERSETZER F (Reprint); FOURNILLIER A; DUBUISSON J; WYCHOWSKI C; NAKANE I; DESGRANGES C; INCHAUSPE G; TREPO C

CS HOP HOTEL DIEU, INSERM U271, LYON, FRANCE; INST PASTEUR, PARIS, FRANCE; INST LILLE, PARIS, FRANCE

CYA FRANCE

SO HEPATOLOGY, (OCT 1996) Vol. 24, No. 4, Part 2, Supp. S, pp. 1020.
ISSN: 0270-9139.

DT Conference; Journal

FS LIFE; CLIN
LA ENGLISH
REC No References

L8 ANSWER 29 OF 44 BIOSIS COPYRIGHT 1998 BIOSIS
AN 96:598514 BIOSIS
DN 99280870
TI Isolation of **human monoclonal** antibodies (HMAbs) directed at conformational determinants of the hepatitis C virus (**HCV**) **E2** envelope protein.
AU Habersetzer F; Fournillier A; Dubuisson J; Wychowski C; Nakano I; Desgranges C; Inchauspe G; Trepo C
CS Hotel Dieu, Lyon, France
SO 47th Annual Meeting and Postgraduate Courses of the American Association for the Study of Liver Diseases, Chicago, Illinois, USA, November 8-12, 1996. Hepatology 24 (4 PART 2). 1996. 381A. ISSN: 0270-9139
DT Conference
LA English

L8 ANSWER 30 OF 44 MEDLINE DUPLICATE 8
AN 96336541 MEDLINE
DN 96336541
TI Visualization of hepatitis C virions and putative defective interfering particles isolated from low-density lipoproteins.
AU Prince A M; Huima-Byron T; Parker T S; Levine D M
CS Laboratory of Virology and Parasitology, Lindsley F. Kimball Research Institute of the New York Blood Center, NY 10021, USA.
SO JOURNAL OF VIRAL HEPATITIS, (1996 Jan) 3 (1) 11-7.
Journal code: CG0. ISSN: 1352-0504.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199701
EW 19970104
AB Hepatitis C virus (**HCV**) in highly infectious sera has been shown to be predominantly associated with low-density lipoproteins. To determine whether the association is specific to low-density lipoproteins (LDL) or very low-density lipoproteins (VLDL), we fractionated **HCV**-containing plasma by a column chromatographic procedure known to separate these classes. Hepatitis C virus RNA detected by polymerase chain reaction (PCR) was associated primarily with the very low-density (VLDL) fraction. However, it could not be ruled out that virus-associated LDL may have eluted with this fraction. Hepatitis C virus virions isolated from sera having sufficient titre for visualization by electron microscopy are generally coated with antiviral antibodies, therefore we utilized the lipid association to isolate antibody-free virions. Very low-density lipoproteins were isolated by ultracentrifugal flotation and then treated with deoxycholate to release the virions. These were then isolated in a highly purified form by centrifugation in a sucrose gradient. The 1.10-1.11 g ml-1 region of the gradients contained 60-70 nm particles. Particles with similar surface structure but having a diameter of only 30-40 nm constituted about 30% of the total. The latter may represent defective interfering particles. The identity of both small and large particles with **HCV** virions and associated particles was confirmed by their trapping on grids by an anti-**HCV E2** **monoclonal** antibody, and by their aggregation by rabbit antiserum to an amino-terminal peptide of E1. Thus, both E1 and **E2** epitopes are displayed on the surface of intact **HCV** virions.

L8 ANSWER 31 OF 44 PROMT COPYRIGHT 1998 IAC

AN 96:230920 PROMT

TI **HCV** Vaccines "A Quantitative Test to Estimate Neutralizing Antibodies to the Hepatitis C Virus: Cytofluorimetric Assessment of Envelope Glycoprotein 2 Binding to Target Cells."

SO Vaccine Weekly, (22 Apr 1996) pp. N/A.
ISSN: 1074-2921.

WC 400

FULL TEXT IS AVAILABLE IN THE ALL FORMAT

AB Rosa, D.; Campagnoli, S.; Moretto, C.; Guenzi, E.; Cousens, L.; Chin, M.; Dong, C.; Weiner, A.J.; Lau, J.Y.N.; Choo, Q.L.; Chien, D.; Pileri, P.; Houghton, M.; Abrignani, S. Proceedings of the National Academy of Sciences of the United States of America, March 5, 1996;93(5):1759-1763.

According to the authors' abstract of an article published in Proceedings of the National Academy of Sciences of the United States of America, "Hepatitis C virus (**HCV**) is a major cause of chronic hepatitis. The virus does not replicate efficiently in cell cultures, and it is therefore difficult to assess infection-neutralizing antibodies and to evaluate protective immunity in vitro. To study the binding of the **HCV** envelope to cell-surface receptors, we developed an assay to assess specific binding of recombinant envelope proteins to **human** cells and neutralization thereof. **HCV** recombinant envelope proteins expressed in various systems were incubated with **human** cells, and binding was assessed by flow cytometry using anti-envelope antibodies. Envelope glycoprotein 2 (**E2**) expressed in mammalian cells, but not in yeast or insect cells, binds **human** cells with high affinity (K-d approximate to 10(-8) M). We then assessed antibodies able to neutralize **E2** binding in the sera of both vaccinated and carrier chimpanzees, as well as in the sera of humans infected with various **HCV** genotypes. Vaccination with recombinant envelope proteins expressed in mammalian cells elicited high titers of neutralizing antibodies that correlated with protection from **HCV** challenge. **HCV** infection does not elicit neutralizing antibodies in most chimpanzees and humans, although low titers of neutralizing antibodies were detectable in a minority of infections. The ability to neutralize binding of **E2** derived from the **HCV** -1 genotype was equally distributed among sera from patients infected with **HCV** genotypes 1, 2, and 3, demonstrating that binding of **E2** is partly independent of **E2** hypervariable regions. However, a mouse **monoclonal** antibody raised against the **E2** hypervariable region 1 can partially neutralize binding of **E2**, indicating that at least two neutralizing epitopes, one of which is hypervariable, should exist on the **E2** protein. The neutralization-of-binding assay described will be useful to study protective immunity to **HCV** infection and for vaccine development." The corresponding author for this study is: S Abrignani, Chiron Biocine, Immunobiol Res Inst Siena, Via Fiorentina 1, I-53100 Siena, Italy.

L3 ANSWER 32 OF 44 PROMT COPYRIGHT 1998 IAC

AN 96:230916 PROMT

TI Testing (**HCV**) "A Quantitative Test to Estimate Neutralizing Antibodies to **HCV**: Cytofluorimetric Assessment of **E2** Glycoprotein Binding to Target Cells."
S. Abrignani, M. Houghton and D. Rosa. IRIS/Biocine Research Centre, Siena, Italy; Chiron, Emeryville, California.

SO Vaccine Weekly, (22 Apr 1996) pp. N/A.
ISSN: 1074-2921.

WC 294

FULL TEXT IS AVAILABLE IN THE ALL FORMAT

AB According to an abstract submitted by the authors to the Keystone Symposia on Molecular and Cellular Biology entitled Hepatitis C and Beyond, held January 23-29, 1996, in Burlington, Vermont, " **HCV** does not replicate efficiently in cell cultures, and therefore it is difficult to assess infection-neutralizing antibodies and to evaluate protective immunity in vitro. To study binding of the **HCV** envelope to cell-surface receptors developed an assay to assess specific binding of recombinant envelope proteins to **human** cells and neutralization thereof. **HCV** recombinant envelope proteins expressed in various systems were incubated with **human** cells and binding assessed by flow cytometry using anti-envelope antibodies. **E2** glycoprotein expressed in mammalian cells, but not in yeast or insect cells, binds **human** cells with high affinity (Kd(approx)10(-8) M). We then assessed antibodies able to neutralize **E2** binding in the sera of both vaccinated and carrier chimpanzees, as well as in the sera of humans infected with various **HCV** genotypes. Vaccination with recombinant envelope proteins expressed in mammalian cells elicited high titres of neutralizing antibodies which correlated with protection from **HCV** challenge. **HCV** infection does not elicit neutralizing antibodies in the majority of both chimpanzees and humans, though low titre neutralizing antibodies were detectable in a minority of infections. The ability to neutralize binding of **E2** derived the **HCV**-1 genotype was equally distributed among sera patients infected with **HCV** genotypes 1, 2 and 3, demonstrating that binding of **E2** is partly independent of hypervariable regions. However, a mouse **monoclonal** and raised against the **E2** hypervariable-region-1 can part neutralize binding of **E2**, indicating that at least neutralizing epitopes, one of which hypervariable, should on the **E2** protein. The neutralization of binding (NOB) assay described will be useful to study protective immunity to **HCV** infection and for vaccine development."

L3 ANSWER 33 of 44 COPYRIGHT 1998 ACS
AN 95:8451 CJACS
SO Analytical Chemistry, (1995), 67(12), 377-524. CODEN: ANCHAM. ISSN: 0003-2700
TI Clinical Chemistry
AU (1) Anderson, David J.; (2) Coordinator; (3) Van Lente, Frederick; (4) Coordinator
CS (1,2,3,4) Department of Chemistry, Cleveland State University, Cleveland, Ohio 44115
(1,2,3,4) Section of Biochemistry, The Cleveland Clinic Foundation, Cleveland, Ohio 44195

L3 ANSWER 34 OF 44 USPATFULL
AN 95:110363 USPATFULL
TI Method of producing secreted CMV glycoprotein H
IN Spaete, Richard, Belmont, CA, United States
PA Chiron Corporation, Emeryville, CA, United States (U.S. corporation)
PI US 5474914 951212
AI US 92-921807 920729 (7)
DT Utility
EXNAM Primary Examiner: Draper, Garnette D.; Assistant Examiner: Teng, Sally P.
LREP McClung, Barbara G.; Robins, Roberta L.; Blackburn, Robert P.
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 15 Drawing Page(s)

ENTRY 2508
NAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods for the recombinant expression and secretion of viral proteins are disclosed. The methods involve the use of compatible escorts to shuttle the proteins to the cell surface. In this way, egress of recombinantly produced proteins out of the cell is facilitated, resulting in increased yields and easier purification of the desired protein.

L3 ANSWER 35 OF 44 BIOSIS COPYRIGHT 1998 BIOSIS
AN 95:289522 BIOSIS
DN 98302922
TI **Monoclonal** antibodies to the hepatitis C virus **E2** envelope protein block **HCV** penetration into cells.
AU Wong D T; Fasler-Kan E; Shih J W; Greenberg H B
CS Div. Gastroenterol., Stanford Univ., Stanford, CA, USA
SO Clinical Research Meeting, San Diego, California, USA, May 5-8, 1995. Journal of Investigative Medicine 43 (SUPPL. 2). 1995. 397A.
DT Conference
LA English

L3 ANSWER 36 OF 44 CAPLUS COPYRIGHT 1998 ACS
AN 1995:485177 CAPLUS
DN 122:263166
TI Molecular mimicry between Fc receptor and S peplomer protein of mouse hepatitis virus, bovine corona virus, and transmissible gastroenteritis virus
AU Oleszak, Emilia L.; Kuzmak, Jacek; Hogue, Brenda; Parr, Rebecca; Gillisson, Ellen W.; Rodkey, L. Scott; Leibowitz, Julian L.
CS Fels Institute for Cancer Research and Molecular Biology, Philadelphia, PA, 19140, USA
SO Hybridoma (1995), 14(1), 1-8
CODEN: HYBRDY; ISSN: 0272-457X
DT Journal
LA English
AB The authors have previously demonstrated mol. mimicry between the S peplomer protein of mouse hepatitis virus (MHV) and Fc.gamma.R. A **monoclonal** antibody (MAb) to mouse Fc.gamma.R (2.4G2 anti-Fc.gamma.R MAb), purified rabbit Ig, but not their F(ab')2 fragments, as well as mouse and rat IgG, immunopptd. (1) recombinant S peplomer protein expressed by a vaccinia virus recombinant in **human**, rabbit, and mouse cells, and (2) natural S peplomer protein from cells infected with several strains of MHV and MHV escape mutants. The authors report here results of studies documenting mol. mimicry between Fc.gamma.R and S peplomer protein of viruses representing 3 distinct antigenic subgroups of the Coronaviridae. The authors have shown a mol. mimicry between the S peplomer protein of bovine corona virus (BCV) and Fc.gamma.R. The 2.4G2 anti-Fc.gamma.R MAb, rabbit IgG, but not its F(ab')2 fragments, as well as homologous bovine serum, free of anti-BCV antibodies, immunopptd. S peplomer protein of BCV (Mebus strain). In contrast, the authors did not find mol. mimicry between S peplomer protein of **human** corona virus (**HCV** -OC43) and Fc.gamma.R. Although the OC43 virus belongs to the same antigenic group as MHV and BCV, MAb specific for **human** Fc.gamma.R I or Fc.gamma.R II and purified **human** IgG1, IgG2, and IgG3 myeloma proteins did not immunoppt. the S peplomer protein from **HCV**-OC43-infected RD cells. In addn., the authors did demonstrate mol. mimicry between the S peplomer protein of porcine transmissible gastroenteritis virus (TGEV) and Fc.gamma.R. TGEV belongs to the second antigenic subgroup of Coronaviridae. Homologous swine IgG, but not its F(ab')2 fragments, immunopptd. from TGEV-infected cells a 195-kDa polypeptide corresponding to the TGEV S peplomer protein. The authors have also examd. whether there is a mol. mimicry between S peplomer protein of

infectious bronchitis virus (IBV) and Fc.gamma.R. Nonimmune chicken IgG did not immunoppt. the S peplomer protein from IBV-infected chicken embryo fibroblasts or Vero cells, suggesting that there is no mol. mimicry between the IBV-S and Fc.gamma.R. Thus, the authors have demonstrated mol. mimicry between Fc.gamma.R and S peplomer protein of 3 members of Coronaviridae, namely MHV, BCV, and TGEV. In contrast, the S peplomer protein of 2 other members of Coronaviridae, namely **HCV**-OC43 and IBV, did not exhibit any mol. mimicry with Fc.gamma.R.

L3 ANSWER 37 OF 44 USPATFULL
AN 94:108852 USPATFULL
TI Hepatitis C virus isolates
IN Miyamura, Tatsuo, Tokyo, Japan
Saito, Izumi, Tokyo, Japan
Houghton, Michael, Danville, CA, United States
Weiner, Amy J., Benicia, CA, United States
Han, Jang, Lafayette, CA, United States
Kolberg, Janice A., Hercules, CA, United States
Cha, Tai-An, San Ramon, CA, United States
Irvine, Bruce D., Concord, CA, United States
PA Chiron Corporation, Emeryville, CA, United States (U.S. corporation)
The Director General of the National Institute of Health of Japan, Tokyo, Japan (non-U.S. corporation)
PI US 5372928 941213
AI US 94-201066 940224 (8)
RLI Continuation of Ser. No. US 93-101280, filed on 2 Aug 1993, now abandoned which is a continuation of Ser. No. US 91-637380, filed on 4 Jan 1991, now abandoned which is a continuation-in-part of Ser. No. US 89-456142, filed on 21 Dec 1989, now abandoned which is a continuation-in-part of Ser. No. US 89-408045, filed on 15 Sep 1989, now abandoned
DT Utility
EXNAM Primary Examiner: Wax, Robert A.; Assistant Examiner: Bugaisky, Gabriele E.
LREP Goldman, Kenneth M.; McClung, Barbara G.; Blackburn, Robert P.
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 14 Drawing Figure(s); 23 Drawing Page(s)
LN.CNT 2182
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Two new isolates of the Hepatitis C virus (**HCV**), J1 and J7, are disclosed. These new isolates comprise nucleotide and amino acid sequences which are distinct from the prototype **HCV** isolate, HCV1. Thus, J1 and J7 provide new polynucleotides and polypeptides for use, inter alia, in diagnostics, recombinant protein production and vaccine development.

L3 ANSWER 38 OF 44 USPATFULL
AN 94:104496 USPATFULL
TI DNA encoding bovine coronavirus polypeptides **E2** and E3
IN Parker, Michael D., Saskatoon, Canada
Cox, Graham J., Saskatoon, Canada
Babiuk, Lorne A., Saskatoon, Canada
PA Veterinary Infectious Disease Organization, Saskatoon, Canada (non-U.S. corporation)
PI US 5369026 941129
AI US 92-919976 920727 (7)
RLI Continuation of Ser. No. US 89-397689, filed on 22 Aug 1989, now abandoned
DT Utility
EXNAM Primary Examiner: Schwartz, Richard A.; Assistant Examiner: Mosher, Mary E.
LREP Morrison & Foerster

CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 14 Drawing Figure(s); 34 Drawing Page(s)
LN.CNT 1178
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Bovine coronavirus (BCV) **E2** and E3 coding sequences and materials for producing the proteins **E2** and E3 are provided. **E2**, E3, or antigenic fragments thereof are useful components for a BCV vaccine.

L5 ANSWER 39 OF 44 USPATFULL
AN 94:37847 USPATFULL
TI **Monoclonal** antibodies to putative **HCV** **E2** NS1 proteins and methods for using same
IN Mehta, Smriti U., Libertyville, IL, United States
Johnson, Jill E., Waukegan, IL, United States
Dailey, Stephen H., Vernon Hills, IL, United States
Desai, Suresh M., Libertyville, IL, United States
Devare, Sushil G., Northbrook, IL, United States
PA Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)
PI US 5308750 940503
AI US 91-748292 910821 (7)
RLI Continuation-in-part of Ser. No. US 90-610180, filed on 7 Nov 1990, now abandoned And Ser. No. US 89-456162, filed on 22 Dec 1989, now abandoned
DT Utility
EXNAM Primary Examiner: Kepplinger, Esther L.; Assistant Examiner: Wortman, Donna C.
LREP Poremboski, Priscilla E.
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1212
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Monoclonal** antibodies which specifically bind to Hepatitis C Virus (**HCV**) **E2**/NS1 antigen. Also provided are hybridoma cell lines which secrete these **monoclonal** antibodies, methods for using these **monoclonal** antibodies, and assay kits for assays which contain these **monoclonal** antibodies.

L5 ANSWER 40 OF 44 MEDLINE DUPLICATE 9
AN 94365917 MEDLINE
DN 94365917
TI Formation and intracellular localization of hepatitis C virus envelope glycoprotein complexes expressed by recombinant vaccinia and Sindbis viruses.
AU Dubuisson J; Hsu H H; Cheung R C; Greenberg H B; Russell D G; Rice C M
CS Department of Molecular Microbiology, Washington University School of Medicine, St. Louis, Missouri 63110-1093.
NC CA57973 (NCI)
F05TW04765 (FIC)
SO JOURNAL OF VIROLOGY, (1994 Oct) 68 (10) 6147-60.
Journal code: KCV. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199412
AB Hepatitis C virus (**HCV**) encodes two putative virion glycoproteins (E1 and **E2**) which are released from the polyprotein by signal peptidase cleavage. In this report, we have characterized the complexes formed between E1 and **E2**

called E1E2) for two different **HCV** strains (H and BK) and studied their intracellular localization. Vaccinia virus and Sindbis virus vectors were used to express the **HCV** structural proteins in three different cell lines (HepG2, BHK-21, and PK-15). The kinetics of association between E1 and **E2**, as studied by pulse-chase analysis and coprecipitation of **E2** with an anti-E1 **monoclonal** antibody, indicated that formation of stable E1E2 complexes is slow. The times required for half-maximal association between E1 and **E2** were 60 to 85 min for the H strain and more than 165 min for the BK strain. In the presence of nonionic detergents, two forms of E1E2 complexes were detected. The predominant form was a heterodimer of E1 and **E2** stabilized by noncovalent interactions. A minor fraction consisted of heterogeneous disulfide-linked aggregates, which most likely represent misfolded complexes. Posttranslational processing and localization of the **HCV** glycoproteins were examined by acquisition of endoglycosidase H resistance, subcellular fractionation, immunofluorescence, cell surface immunostaining, and immunoelectron microscopy. **HCV** glycoproteins containing complex N-linked glycans were not observed, and the proteins were not detected at the cell surface. Rather, the proteins localized predominantly to the endoplasmic reticular network, suggesting that some mechanism exists for their retention in this compartment.

L3 ANSWER 41 OF 44 MEDLINE
AN 95065646 MEDLINE
DN 95065646
TI Processing of E1 and **E2** glycoproteins of hepatitis C virus expressed in mammalian and insect cells.
AU Matsuura Y; Suzuki T; Suzuki R; Sato M; Aizaki H; Saito I; Miyamura T
CS Department of Virology II, National Institute of Health, Tokyo, Japan.
SO VIROLOGY, (1994 Nov 15) 205 (1) 141-50.
Journal code: XEA. ISSN: 0042-6822.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199502
AB Processing of the envelope glycoproteins (E1 and **E2**) of hepatitis C virus (**HCV**) was investigated by using cDNA clones covering the structural and part of the nonstructural (NS) protein regions. The cDNA clones expressed in mammalian and insect cells were immunoprecipitated by serum of a hepatitis C patient and by **monoclonal** and polyclonal antibodies raised against the recombinant proteins expressed in insect cells or Escherichia coli. The **E2** protein expressed in both insect and mammalian cells was a glycoprotein of 60 kDa (gp60) and removal of the sugar residues by N-glycanase yielded 38- and 40-kDa proteins. Pulse-chase experiments revealed that efficient expression and processing of the envelope proteins required coexpression with the flanking core and NS2 proteins. Not only E1 and **E2** proteins but also NS2 and NS3 proteins were coprecipitated by anti-E1 or anti-**E2** **monoclonal** antibody in the cells infected with the recombinant baculovirus expressing structural and NS proteins (NS2 and NS3), while only the NS3 protein was precipitated by anti-NS3 antibody. The association of E1 and **E2** proteins was not influenced by the presence of a reducing agent and was still observed in the cells coinfected with the deletion mutants lacking both internal and C-terminal hydrophobic regions of each protein. Furthermore, the truncated forms of the E1 and **E2** proteins were secreted into the culture supernatant and some of them were still associated with each other.

L3 ANSWER 42 OF 44 BIOTECHDS COPYRIGHT 1998 DERWENT INFORMATION LTD
AN 93-12073 BIOTECHDS
TI Mammal expression system for hepatitis C virus protein; amyloid precursor protein or **human** somatotropin fusion protein production using a new vector for use as diagnostic or therapeutic antigen
PA Abbott
PI WO 9315183 5 Aug 1993
AI WO 93-US907 29 Jan 1993
PRAI US 92-830024 31 Jan 1992
DT Patent
LA English
OS WPI: 93-258673 [32]
AB Plasmid pHCV-162, plasmid pHCV-167, plasmid pHCV-168, plasmid pHCV-169 and plasmid pHCV-170 vectors contain inserts encoding fusion proteins APP-**HCV-E2** (first two) or HGH-**HCV-E2** (last three). Fusion protein APP-**HCV-E2** contains amyloid precursor protein and a hepatitis C virus-**E2** antigen, and fusion protein HGH-**HCV-E2** contains **human** somatotropin and a hepatitis C virus-**E2** antigen. The antigen is preferably glycosylated, and may be produced in a mammal expression system. Polyclonal or **monoclonal** antibodies against the glycosylated antigen are also new. The expression system allows production of high yields of hepatitis C virus proteins, and the recombinant glycosylated antigens and antibodies may be used in diagnostic and therapeutic applications, and for isolation of the hepatitis C virus etiological agent. (103pp)

L3 ANSWER 43 of 44 COPYRIGHT 1998 ACS
AN 93:7481 CJACS
SO Analytical Chemistry, (1993), 65(12), 364-484. CODEN: ANCHAM. ISSN: 0003-2700
TI Clinical Chemistry

L3 ANSWER 44 OF 44 DPCI COPYRIGHT 1998 DERWENT INFORMATION LTD
AN 97-535857 [49] DPCI
DNN N97-446042 DNC C97-171413
TI New **human monoclonal** antibodies to hepatitis C virus **E2** antigen - obtained using a combinatorial antibody library prepared using RNA from a **HCV** infected subject, useful for vaccine preparation.
DC B04 D16 S03
IN ALLANDER, T E; PERSSON, M A
PA (ALLA-I) ALLANDER T E; (PERS-I) PERSSON M A
CYC 19
PI WO 9740176 A1 971030 (9749)* EN 103 pp
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: CA JP
ADT WO 9740176 A1 WO 97-EP1977 970418
PRAI US 97-844215 970417; US 96-635109 960419
=> log h